

Some Contributions of Central African Languages to
African Linguistics, Linguistic Theory, and Language Universals*

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1. Introduction

The languages spoken in Chad, Cameroon, Central African Republic and South Sudan are among the least often mentioned in the currently available literature. For example, W. E. Welmers, whose work concerns many of the best documented African languages, writes: "Languages of the Adamawa-Eastern branch of the Niger-Congo family are not considered in any detail here, for lack of anything but the most minimal personal experience with them." (1973:197). It seems to me that the Adamawa-Eastern languages, as well as others in Central Africa, can contribute to our knowledge of African language structures, since they exhibit some interesting characteristics. Moreover, they raise certain problems of linguistic theory. And finally, some of them seem to give the lie to certain hypothetical linguistic universals. My purpose here is to successively examine these three points.

2. Contributions to African linguistics

There is no recognized family which might be termed "Central African". However, it is assumed that the facts which are presented below are characteristic of a geographical zone in which many languages, no matter what group they belong in (Bantu, Adamawa-Eastern, Central Sudanic or Chadic), bring some comparable contributions to African linguistics. A further step would be to study the possible claim that there exists a relationship between this common contribution and some typological resemblances among the languages belonging to that geographical unit.

2.1. To start with the sociolinguistic setting, I would like to point out that many of the languages spoken in North Cameroon illustrate the following fact: the amount of borrowing from Hausa or Fulani (and therefore from Arabic in most cases) parallels the amount of islamization. It may happen, since the process of borrowing is constant, that some loanwords fail to be identified, as in Hausa itself, where the "new unit" mētán "two hundred" cited by Welmers (1973:293) is the Arabic word mi:te:n. In the area where I have worked, the degree of Moslem influence is diversified, and consequently, so are the various cultural vocabularies. For example, three related languages of the Adamawa group--Mbum, Mundang, and Tuburi--can be distinguished according to the number of Fulani loanwords: low in Tuburi, high in Mbum, intermediate in Mundang (Hagège, forthcoming a).

What is worth observing is what Mbum has borrowed function markers (prepositions), like dàgà "since", hà "up to", and numerals like téméré "one hundred", whereas in Mundang, and still more in Tuburi, Fulani loanwords are limited to verbs and nouns. These examples and many others illustrate the behavior of African languages towards borrowing: lexical items are far from being the only ones that can be borrowed, but when grammatical morphemes are also introduced, this is related to a larger cultural influence.

2.2. Connected with this problem is the marginal situation of some Bantu languages of South Cameroon, whose phonological systems might have been influenced by surrounding languages. For example, Bafia, like other languages of the Bantu Group, exhibits a complex system of noun classes, but, unlike many of them, it also has four back unrounded vowels u, ə, ʌ, and ɑ.¹ Moreover, the complex rules of tonal combinations it has in the association of the noun with its class marker are seldom found elsewhere within the group (Guarisma 1973).

With regard to other tonological features in the area, let us mention a number of languages with four-tone systems, which could be added to Bariba, Tigong and Kutep, presented in Welmers (1973:102ff.). In the fourth subdivision (Moru-Madi) of the Central Sudanic languages, as well as in Monzombo (Eastern branch of Adamawa-Eastern), four- and even five- and six-tone systems have been observed, if one includes level as well as contour tones (ER 74 1973; 115 and map IX with tonal isoglosses, which may be taken as a factual basis for whatever hypothesis one would like to propose with respect to the geographical distribution of the number of tones and its interpretation in terms of cultural areas).

Another contribution of Central African languages to our knowledge and interpretation of tonal phenomena is offered by the relatively high number of "contour languages" met in that region. Welmers, while retaining this formula from Pike, has suggested defining a contour language not only in terms of direction of pitch change, but "more specifically as one in which at least one unit toneme must be described in terms of two distinct components: the direction of pitch change, and also the position of the entire glide within the pitch range of the environment. For example, Vietnamese has unit tonemes that must be described as "high rising" and "low rising"; Cantonese has "high rising", "low rising", "high falling" and "low falling" (in addition to four level tones); Mandarin has "high rising" and "complete falling".² By the same definition, no known language of Africa is a contour language, though unitary rising and falling tonemes may sometimes be found, without contrasting positions in the pitch range" (Welmers 1973:81). It seems that, at least in the area where I know field work has been done, some languages are found which refute that contention: Ngbaka (Central African Republic) has three level and six (different) contour tones (Thomas 1963:20), Monzombo has four level and six contour tones, Gbandili-Bulaka (CAR) has three and four (ER 74, 1972:-15), Tuburi has three and six (Hagège, forthcoming a).

2.3. Concerning the class markers, it must be observed that most Adamawa-Eastern languages have non-class noun systems. This is not exactly the same situation, however, as in the Mande languages, which show "nothing at all comparable to the class and concord systems" found in Bantu. Moreover, there is--at least in the languages that have so far been described--no tendency towards "a reorganization of the noun classes in terms of two categories, animate and inanimate" (Welmers 1973:211; Hyman and Voeltz 1971: 57). Rather, a non-class system is found in several languages that have, nonetheless, a distinction between two kinds of nominals; resorting to distributional criteria, it is possible to posit nominals proper and to oppose them to a word-class which I suggest calling nominoids (or dependent nominals). The difference between nominals and nominoids parallels the one found in the Mande languages between "free" and "relational", itself reflecting "the distinction between alienable and inalienable possession" (Welmers 1973:212). The nominoids cannot occur without being determined by a noun or a pronoun. They are names of body parts, kinship terms or words for place relationships. But the possessor is not necessarily animate. The result of the association is often idiomatic. Thus, in Ngbaka,

mò mòkònzî 'the chief's mouth',
mouth chief

but also

mò kpé '(the) dawn'
mouth day (Thomas 1963:95)

Interestingly enough, the defective class of items here termed nominoids is paralleled in some languages by a defective class of verbs. This will be expanded below (see 2.6).

Another vestigial class system is found in Banda (Central African Republic). This language has two sets of nouns, of which one is and the other is not combinable with the plural marker. This distinction does not correspond to the one between animate and inanimate (see Cloarec-Heiss 1972:37-39).³

2.4. Concerning the verbal inflections, one feature which is worth mentioning is the change of verb stem according to the plurality of the object, of the subject (or of both), or of the action (iteration). Mundang and Tuburi present the following distinctions:

| | unmarked (singular or plural) | marked (plural only) |
|---------|-------------------------------|----------------------|
| Mundang | | |
| | <u>gbè</u> 'to catch' | <u>gbà</u> |
| | <u>lò</u> 'to pull' | <u>lwè</u> |
| | <u>pì:</u> 'to plant' | <u>pyà:</u> |
| | <u>byà</u> 'to beget' | <u>ràk</u> |
| | <u>kà</u> 'to be sitting' | <u>hî</u> |
| Tuburi | | |
| | <u>tjā:</u> 'to chop' | <u>tjār</u> |
| | <u>lwá?</u> 'to dream' | <u>lwád</u> |
| | <u>mā</u> 'to lift' | <u>hō:</u> |

As can be seen from the above examples, there are various degrees of changes, from vowel alteration to complete difference of stem. The same kind of verbal inflection in relationship with various types of plurality has been observed, within Niger-Congo, in Banda (Cloarec-Heiss 1972:107), Ngbaka (Thomas 1963:144), Bantu (the extensions mentioned in Welmers 1973:340 and exemplified in Guarisma 1973:119) and Efik (Welmers 1973:335). It is found likewise in Chadic, e.g. in Bachama (Carnochan 1973:101). Outside Africa, this kind of inflection is found in a number of languages, such as Ostiak and other members of the Uralic family (Sauvageot 1971:349 and, for Nenets, 355-6), New-Guinea languages such as Toaripi and Kiwaian (Wurm 1972), Athapaskan languages such as Navaho, Chipewyan, Dogrib (Hoijer 1973:30-42), Salishan languages, and, for a small set of verbs, Ainu (Haguenauer 1952:481). Naturally, the reason why there is something remarkable here is that most of these are languages in which only some verbs present the phenomenon, and neither the verbs nor the nouns are normally inflected, in the classical sense of the term.

2.5. Another feature which could be retained for the sake of general considerations in African linguistics has to do with the syntactic behavior of ideophones. In Guidar and Guiziga, and probably in other Chadic languages of North-Cameroon (cf. Hagège, forthcoming b), some ideophones, usually accompanying particular verbs of motion or of moral attitude, may themselves be used as predicates without the verb. But, in that case, there are two kinds of restrictions: first, on the set of possible aspectual morphemes, second on the set of subject pronouns. The emphatic pronouns are the only ones found before the ideophone in predicative function.

2.6. Finally, I should like to mention a syntactic particularity found in Mbum, Mundang and other Adamawa-Eastern languages: there exists a class of defective verbals that I have proposed (Hagège 1971:96-97) to call verboids (not to be confused with verbids in Ewe, according to Ansre 1966). They are defined by the impossibility of their being used outside a restricted range of constructions, e.g. with adverbs or adverbial complements such as prepositional phrases. I have proposed the term syndesmon to characterize that kind of syntactic joining, which yields neither a verb phrase, nor a complete sentence, and should therefore be designated by a specific term. The syndesmon could be compared to the facts described in several Mande languages, the difference being that the complement which accompanies (i.e., in Mande, precedes) the verb is not an adverbial but a direct object.

3. Contributions to linguistic theory

Each of the facts that will now be commented on should naturally be presented in detail in a specific article. My intention here is merely to provide an overview of the contributions that have a theoretical interest.

3.1. Concerning segmental phonology, a striking phenomenon is the use of the same distinctive feature within three different series of the phonemic paradigm in Mundang. This language has glottalized b̥ and d̥, parallel with non-glottalized b and d, but also m̥ and n̥ parallel with m and n, and even y̥ and w̥, parallel with y and w (w̥ and y̥ are also found in Tuburi and Duru). This is rare in the phonemic systems that are known: Trubetzkoy (1939:143-144) writes: "It is difficult to find a language in which not only stops and fricatives, but also sonants (i.e. nasals and continuants) would be differentiated by the same feature. Among the languages we know, Irish is the unique one which presents such a character."⁴ I think Trubetzkoy would have been less amazed, had descriptions of Pacific languages been available to him: Iaa of Ouvéa (Loyalty Islands), to mention just one, has, according to D. T. Tyron (1968) the voiced-unvoiced opposition not only within stops and fricatives, but also within sonants (see Hagège, forthcoming c).⁵ What I should like to point out is that the highly economical use of the same oppositive possibility (in Mundang, glottalized vs. non-glottalized) to enlarge the number of distinctive units could itself be brought forward as an argument in favor of the existence of system organization and system constraints. This is not unimportant if one thinks that, with the exceptions, perhaps, of Sapir and some of his disciples, the reality of the phonemic paradigm has, indeed, been ignored or rejected by many theoreticians, including generative phonologists.

3.2. Concerning suprasegmental phonology, one of the widely used notions towards which some reservations might be raised in the study of Central African languages is the notion of tone replacive. Taken from Gleason (1961:74), in which it is used to designate segmental phenomena, the notion of replacive has been adapted to African tone languages, and applied to the situation in which "the inherent or stem tone of a morpheme does not appear; in its place is another tone which has morphemic status in its own right." (Welmers 1973:132). Languages like Bafia (Guarisma 1973) or Banda (Cloarec-Heiss 1972), whose noun and verb systems, respectively, have complex rules of tonal combinations, compel one to give up the notion of replacive, which implies unrelatedness between forms, and to reconstitute an underlying form according to a principle of maximum variation. Starting from such a form, all morphotonemic alternations become clear and easy to account for. For example, in Banda we find

nā 'to go' / nā 'went' (Cloarec-Heiss: 70-71).

Instead of contending that the perfective corresponds to a morpheme defined as "high replacing stem tone", it is much clearer, for an account of the whole verb system, to posit the following process:

| | | | |
|--|---|--------------|--|
| * <u>nā</u> (stem) + <u>ŋ</u> (perfective) | → | * <u>nāā</u> | |
| * <u>nāā</u> | → | * <u>nā</u> | (vowel simplification) |
| * <u>nā</u> | → | <u>nā</u> | (tone assimilation and absorption. Many other examples in Bouquiaux 1970 and Van Spaandenck 1971). |

This restitution illustrates the rules reflecting the linguistic competence of the Banda speakers, whereas the notion of replacive fails to capture such generalizations, and implies a confusion between the definition of theoretic entities and the analytic procedures requested to discover them (see Halle 1959:12).

3.3. As an indirect and ethnophonological confirmation of the psychological reality of tonal morphemes, I should like to adduce the following fact: many of the speakers of Gbaya (Central African Republic) associate the high tone with men and with the verb bé 'take!', the low tone being associated with women and with the verb té 'come!'. In other words, the high tone "takes" or dominates, as the men ordinarily do in this type of society, and the low tone "comes" or is dominated, as the women are. This is precisely what is reflected in the noun phrase, where a low tone may become high at the end of a derivation, whereas a high tone is never dominated, i.e. does not change (Monino-Roulon 1972:115).

Another case of consciousness of tones is found in Duru (Adamawa). According to Bohnhoff (1971:26) "Durus are conscious enough of their three tonal levels ("voices" in Duru), that they have given each a name: yég 'még' 'high voice', yég waa 'mid voice', and yég gbôô 'low voice'. These designations confirm the fact that, outside the languages where the classical names attributed to the tones are in relationship with a writing tradition, like Chinese or Vietnamese, several exclusively oral languages do have expressions to refer to tones. Consequently, we may speak of the psychological reality, or, more precisely, the ethnophonological reality of tonal phenomena.⁶

3.4. To come now to problems of syntax, let us examine some nominal compounds in Mbum. One could be tempted to call "asyntactic" a type of association broadly used in this language. It consists of sequences that might reflect an ancient stage, but do not correspond to the syntax of today:

Ex. zì-ndôk-mòkón 'lack-finger-three (to reach ten)'
= seven

bán-gûn-dûk-mbâm 'take-child-escape-rain' =

Biophytum petersianum Klotsch.⁷ (Hagège 1971:164 and 166).

No Mbum sentence may, in today's speech, contain a verb preceding its subject, or a verb without a subject. Such types of compounds have theoretical interest in that they show that linguistic competence does not necessarily correspond to a single system. Two or more synchronic strata, representing different syntactic systems, may coexist in the competence of one and the same individual. The consequence is that certain rules apply on the sentence level, but do not apply on the compound level, where other rules are found instead. It is therefore necessary to specify the range of application of the rules and thereby to determine if the synchronic viewpoint which most contemporary linguistic theories are based on can

be maintained without explicitly defining what this implies as to the number of different systems to which the individual's competence corresponds. A linguistic theory is inadequate if it does not allow a formalism by which the rules reflect polysystemic possibilities.

3.5. Just as the sentence level does not necessarily reflect the same system as the compound level in one language, so it is important to ask whether there exists a higher level or not. Transformational grammar has indeed limited most of its investigations to the sentence and its subdivisions. But in many languages, there are facts which cannot be accounted for if one remains imprisoned within this framework. The only way to explain them is to consider as a unit something larger, i.e. the paragraph.

In Mundang and Tuburi, we find personal pronouns that refer to the subject of a declarative or "psychological" verb, even if this subject has occurred in a very remote previous sentence of the same speech act. I have proposed the term logophoric for these pronouns, which are coreferential with the author of the discourse or experiencer of the psychological situation: in Tuburi, for example, we have:

| | | | |
|---------------------------|------------|-----------|------------------------|
| <u>sā:rā</u> | <u>dūs</u> | <u>sō</u> | |
| logoph. | plural | scatter | so |
| | | | '(They said that) they |
| scattered in that manner' | | | (Hagège 1974:298). |

The term sā:rā here does not refer to people belonging to the situation or to the linguistic context. It is not, therefore, anaphoric. It cannot be understood, unless we posit in the deep structure a declarative verb, i.e. unless we consider it as a reduction of something which, in English, corresponds to "they said that they". But we do not have to imagine or hypothesize such a structure, for it actually is the very one we have: in such a case, the beginning of the speech paragraph (we are dealing with an exclusively oral language) necessarily contains a verb "to say". Since this introductory verb occurs once in the beginning and is never repeated, it is obvious that there is no possible underlying sentence, unless we decide to treat the whole paragraph as a linguistic unit.⁸ If I am not mistaken, this is not feasible, or at least very difficult in the present state of standard transformational theory.

4. Contributions to language universals

I shall limit myself to two points: (1) function markers (prepositions or postpositions), (2) relative clauses, center-embedding and comprehensibility.

4.1. Function markers. According to a conception of grammar with which Postal has been credited by Lakoff (1965), and which is also expressed in Ross (1966), Becker and Arms (1969) and others, "grammatical morphemes may not appear segmentally in deep structures, that is, the terminal elements of deep structures may only be lexical items" (Lakoff 1965 [1970]:xii). In opposition to that claim,

various studies have shown that, in certain languages, such categories as prepositions, for example, are completely indispensable in the deep structure. O. Awobuluyi has tried to establish that "Yoruba prepositions are not syntactically predictable, nor are they a subclass or transformational derivatives of any other lexical category in the language". (Awobuluyi 1971:101).

It is true that, before positing prepositions or postpositions in African languages, the European (or Europeanized African) linguist has to ask himself whether he is influenced by a European language or not. Welmers might be right in claiming that "In Niger-Congo languages, there are very few words which can properly be called prepositions" (Welmers 1973:452). However, there are languages in Central Africa in which prepositions, as in Yoruba, must be posited in the deep structure. This amounts to saying that in Mbum, for example, we do not have the same situation as in Kpelle, where the postposition-like relationship "is not inherent in the relational noun at all, but rather in the position of the noun-phrase after the verb" (Welmers 1973:217). (I do not take into account here, since it is irrelevant to the present discussion, the fact that Mbum is prepositional and Kpelle postpositional). Let us note, by the way, that this wording is consistent with a current conception, according to which position is a surface structure characteristic. Several reservations could be made thereupon. But it is not my purpose to discuss this topic here. What I am concerned with is the following: putting aside the Fulani loanwords cited above (see 2.1), we have the following set of terms:

| | | | |
|-------------|---------------|-------------------|--------------|
| <u>kà</u> | 'with' | <u>bí</u> | 'in' |
| <u>bá</u> | 'like' | <u>òè</u> | 'because of' |
| <u>fôl</u> | 'in front of' | <u>fâl</u> | 'behind' |
| <u>ôl</u> | 'inside' | <u>ôêl</u> | 'beside' |
| <u>ngêr</u> | 'above' | <u>tîbâ</u> | 'below' |
| | | (Hagège 1971:267) | |

These terms are used in sentences like

ké jí kà mí wà 'he has come with me'
he come with me perf.

or

mì dük ôè ké wà 'I escaped because of him'
I escape because of him perf.

Moreover, these terms share the following features: (a) no existing nominal corresponds to the first three (kà, bí and bá). For the other terms, the corresponding nominals (names of body parts here as elsewhere in Africa, America, etc.) are extremely rare in contemporary usage. (b) the connective à is necessary as a possession marker:

Ex. sôâ à gânâlúkú 'the chief's head'
head of chief

vòk à nzùk
feet of man

'the man's feet'

but it never occurs after the terms of the above list. (c) this list is (synchronically) closed. (d) in a given text, the frequency of the above terms is six times higher than that of nominals.

Taking these features into account, it does not seem possible to assert that the above terms are nouns. I suggest treating them as prepositions (Hagège 1971:269) and state that no supposedly universal theory of grammar which rejects prepositions from deep structure permits full justice to be done to sentence structures of Mbum and languages of a similar or comparable type.

4.2. Relative clause, center-embedding and comprehensibility. In Kuno (1974:118), it is contended that there are "no languages that regularly mark embedded clauses in both clause-initial and clause-final position".

This universal feature, related to Greenberg's universals 3, 4, 12, 17 and 24 concerning the positions of S, O and V in regard to one another, is based on the assumption that "languages will embody devices to minimize those patterns that cause perceptual difficulties." (Kuno 1974:118). Thus a language which would use one grammatical word at the beginning and another at the end of an embedded clause "would impose an intolerable burden on the memory of the speakers." (Kuno 1974:128).

Consistent with this is Kuno's claim that "combinations of postpositions and postnominal positioning of attributives" (as well as combinations of "prepositions and prenominal positioning of attributives") are avoided because they "would produce a hopeless situation of center-embedding and juxtaposition of postpositions" (or an "equally hopeless situation of center-embedding and juxtapositions of prepositions") (Kuno 1974:128). Consequently, if a VSO language, instead of being prepositional, is postpositional, the English phrase "the color of the flowers in the vase on the table" becomes

color [flowers [vase [table on] in] of]

It happens that Mbum and Ngbaka on the one hand, Moru and Mangbetu (Central Sudanic) on the other hand provide counter-evidence to these contentions. Mbum has double marking of relative clauses by two deictics:

es. ùì àí mì zànzán nú bèlbél 'The woman I have
wòman I met be beautiful met is beautiful'
(Hagège 1971:334)

It is not possible to use àí at the beginning without nú at the end (or conversely). The same thing is found in Ngbaka: a double deictic, nè...nè, encloses the relative clause. Since the two elements necessarily occur together, we should consider them, in both languages, as a unique discontinuous morpheme. It is true

But instead of **koykɛ uni toko fasi ri odrupi ro ma ro*, what we have is an embedding of each new NP between the dominating NP and the postposition, so that all postpositions are juxtaposed to the end. Even considering that *ri* and *ro* are, rather than postpositions, combinations of a connective with class markers in gender concord (human vs. animal) with the nouns, as is suggested in the translation given in the tree, we must admit that the Moru structure is a violation of Kuno's universal, and therefore produces a "hopeless situation of center-embedding and juxtaposition of postpositions". The same hopelessness applies to another unfortunate Central Sudanic language, Mangbetu, which presents the same structure (Larochette 1958:81 ff.).

Such a situation does not drive Moru and Mangbetu speakers to despair. It is more likely that linguists, who are speakers of a given language, are influenced by a logic unconsciously drawn from the structures of this language when they judge which linguistic situations are hopeless and which ones are not. However, I recognize that the structure illustrated by Moru and Mangbetu is, as far as I know, not particularly frequent. Consequently, there remain two possibilities: either we state that near-universals having to do with the intuitively felt limitations of the human capacity of temporary memory are more or less likely, although as yet no scientific study has been done concerning speakers of oral languages; or we admit that even for speakers of languages with a writing tradition, we do not know enough about perceptual difficulties and the process of comprehension. In the latter case, we had better wait for more information and renounce universal statements as long as they are based only on a preconceived idea of logical structures, suggested to us by the data of the languages with which we are familiar.

Footnotes

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¹Another type of relatively rare phoneme is characteristic of several languages in the area, the labiodental vlap *V*, found in Mundang, Tuburi, Mbum, Banda, Manza, Duru: the lower lip flaps forward after having been placed behind the upper teeth.

²A different analysis has been proposed in Rygaloff (1973:50), reducing the number of tonemes by the choice of two relevant features: length and level.

³Banda also has reduplication of verb-stem as a process to express negation. Reduplication is very widely used in the languages of this area, though perhaps not as much as in Hausa and other Chadic languages. Mbum and Mundang have reduplications of

various types corresponding to various verbal aspects. One might compare this to the reduplication processes abundantly found in Snohomish and other Salishan languages, which exhibit a "chameleon morphology", according to Hess (1966), who borrows the term from Hockett.

⁴In Irish, the opposition that is found within stops, fricatives and sonants as well, is the one between voiced and unvoiced (C.H.).

⁵Wolof of Sine Saloum has, likewise, a fortes-lenes opposition within stops, semi-nasals and nasals (according to Hedger 1973). Note also that some Salishan languages, such as Thompson (studied by L. Thompson) and Kalispel (studied by H. Vogt) have the same oppositions as Mundang.

⁶On this problem, see Haudricourt (1970).

⁷The Mbum name of this sensitive plant is due to the fact that its leaves retract at the first raindrop, like a mother's arms to protect her children against a danger.

⁸Similar facts are found in other Central African languages, such as Banda, Ngbaka and Yakoma (see Cloarec-Heiss 1969:62 and 66). Many other language families all over the world have that too, e.g. Melanesian (for Wajokeso, see D. West 1973:28-29).

⁹In certain cases of discontinuity, the second element of the embedding phrase is merely chopped away: e.g., in some dialects of American English, the common usage today, in expressions such as "as far as X is concerned", is to omit the "is concerned" if X is (deemed) too long: "I'm not at all sure as far as my future" (quotation from a sports figure in the newspaper, according to Wm. E. Welmers, whom I thank for providing this example).

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